Nature's jottings

Newsletter of the Natural History Society of Jamaica Feb/Mar.

NEW ACTIVITIES FOR 2006

February

TOPIC: APHIDS OF JAMAICA
PRESENTER: DR. TANNICE HALL
DATE: THURSDAY FEB. 23, 2006 AT 5.30PM
VENUE: PCJ AUDITORIUM, TRAFALGAR ROAD.
This should make a good follow up to Dr. Allen's presentation in November.

FIELD TRIP

TO SUGAR FACTORY & JADF MARINE SHRIMP & COTTON FARM

DATE: SATURDAY, FEBRUARY 25

All who wish to go should meet at the SRC, Old Hope Road at 9.30 a.m. for car pooling.

1. THE BERNARD LODGE SUGAR FACTORY.

This factory, the closest to Kingston produces brown sugar from the sugar cane supplied to it. It was the factory that was recently operated by the PCJ and where a number of new products and innovations were done and which were planned to propel the modernisation of the sugar industry. Among these were, an ethanol producing plant, a fully equipped plant being beside the sugar factory but now not operating, and the production of chip boards using cane fiber and bagasse, which were actually produced and sold to the public for several years. Among other innovations, were the production of charcoal briquettes also from bagasse, organic fertilizers from the composting of factroy wastes and planned experiments using sugar cane tops in animal feed.

Most of these were discontinued for a number of reasons. Composting is being done on a limited scale by the Sugar Industry Research Institute, SIRI, and these innovations could be brought up in our visit to the factory. With the announced planned closure of the factory sometime in the future by the Prime Minister, it is likely these innovations will be further discarded or will need to be re-investigated.

The factory tour, almost lovingly done by the factory manager, Mr. Roy Budram, starts with a Q.C. lab high above the factory entrance, where tests are done on the quality of the cane, from the trucks while they are being processed at the gate, pieces of cane being extracted by mechanical probes. If juice quality, etc. is unacceptable the shipment is rejected at the the gate. The elaborate lab and even the view from it high above ground is panoramic.

From there Mr. Budram, goes through the three floors of the factory, from the washing and grinding of the cane, to the boiling operations and finally to the third floor where the concentrated juice is

crystallised into brown sugar and a mother liquor of molasses. The sugar crystals are filtered and bagged.

2. JADF SHRIMP FARM.
This started as a joint venture with the JADF and UWI. UWI operated the hatchery at the Marine Lab in Port Royal, and which supplied pust larvae to the farms. The Hatchery has recently been de-emphasized having been found uneconomcal. The farm, near the sea in Old Harbour, pond grows marine shrimps until they are of a premium size for sale to the hotels and supermarkets. When last we visited both the hatchery and farm several yeras ago, we were advised that approx. 40% of world consumption of shimps was by shrimp farming. There is now another hatchery and farm in the Clarendon area operated by Taiwanese interests, but they have been extremely publicity shy.

3. JADF SEA ISLAND COTTON FARMS.
This farm is adjoining the Shrimp Hatchery and is part of our intended visit. Sea Island Cotton, is from a species native to the West Indies, Gossypium barbadense (Malvaceae). The cotton has long fibers and the finished product has the desirable shiny appearance likened to Silk, with the breathe-ability associated with cotton. It fetches a premium price. The plantation has been contending with pests that have been sustained by the remnants of cotton plants from plantations which were grown locally in the early 20th century, and which are common in many parts of the island. Cotton seed oil was produced for edible oil in Jamaica. Quality Control can be important here, since if the bitter principle, gossipol, is not removed from the oil, it is not only poisonous but also causes contraceptive effects in males. Fully refined Cotton Seed oil is wholesome and widely used in a variety of foods in the USA.

MARCH AGM

The NHSJ's Annual General Meeting will be held on Saturday, March 25, 2006 at the Tropical Learning Centre, Hope Zoo at 10.00 a.m.
We expect to have a speaker for the occasion.
Refreshments will be served.

RECENT ACTIVITY REPORT

ANNUAL NHSJ LUNCH AND HIKE AT CRANBROOK FLOWER FOREST
SUNDAY 29th, JANUARY, 2005 - Cicely Tobisch

The annual get-together by NHSJ members took the form of an outing to the Cranbrook Flower Farm, located 18 miles west of Ocho Rios. Some 25 members and friends participated and visited the park with a forest covering an area of 130 acres, 40 of which have been landscaped. The Little River flows through the property from a head, where it rises out of the ground from an elevated area. The name of the river seemed a misnomer, it being a heavy fast flowing river swelled by recent rains. In fact several members remarked how much it reminded them of the White River, where the Society had visited some time ago and on which were constructed two several Megawatt hydro-power stations.

The many rocks and boulders in the river formed rushing cascades, adding to the scenic beauty of the Flower Forest. There were several lawns near the entrance separated by hedgerows of red and

pink gingers, *Gulliania purpurea* (Zingiberaceae) and rows of a large leaved *Begonia* with leaves up to 25 cm and more and up to 20 cm wide, bearing upright inflorescences, with white flowers on slender unbranched white peduncles, up to 20 cm and more in length. One of the lawns had a large gazebo where our group had lunch and nearby could be seen two large stately, Mountain Immortelles *Erythrina poeppigiana* (Papilionaceae), with their orange-yellow flowers coming into full bloom. At maximum bloom, these trees are deciduous and the trees are a blaze of flowers on the trees. Several of the endemic Broadleaf, *Termnalia latifolia* (Combretaceae), 20-39 metres high, with horizontal branching than the related West Indian Almond, *T. catappa*, with its more spreading and whorled branches. A group of *Costus speciosus* (Zingiberaceae) could also be seen. The pathway to the gazebo was lined by tall stately Royal Palms, *Roystonea princeps* (Palmae), and a mature tree of the Spanish or Duppy Machete, *Erythrina corallodendrum* was also observed near to the entrance. Also seen were many *Brugmansia sp* (syn. *Datura*) (Solanaceae), *Cordyline fruticosa* (Liliaceae), the Pride of Barbados, *Caesalpinia pulcherimma* (Caesalpiniaceae), *Pentas sp*., *Dracena sp*., *Pleomele sp* (Liliaceae) and *Selaginella sp*., a creeping Melastome, *Monstera deliciosa* (Araceae), and an endemic Gesnariad, *Gesnaria acaulis*, common on the cliffs and rocks of the forest.

Along the trail beside the river, were several trees of the endemic Anchovy Pear, *Grias cauliflora* (Rhizoporaceae). This tree is distinctive because of its very large dark green leaves, one of which was measured at approximately 150 cm (5 ft) long and 37.5 cm (15 in) wide. Also common along the river were Rose Apples, *Syzygium jambos* (Myrtaceae), a native of the Indo-Malaysian and Pacific regions and now common in many parts of the world.

Among the mushrooms observed were several specimens of the Artist Fungus, *Ganoderma applanatum* (Ganodermataceae), growing on the trunks of several trees along the trail and a large one by one of the platforms overlooking the river. There were also many tree fern, possibly *Cyathea sp*. along the riverbanks and the Wild Calabash, *Enallagma latifolia* (Bignoniaceae), in both flower and fruits, the trees being up to 10 m. tall. The latter could be identified by their purple-veined cream coloured, bell-shaped flowers and their pointed green fruits, 5 – 12 cm. long. Also seen were several Star Apples, *Chrysophyllum cainito* (Sapotaceae), several species of *Philodendron*, and the Cat Tail, *Acalypha hispida* (Euphorbiaceae).

Your Jottings

Attack on Kingston/St. Andrew by Cow Itch?

Dr. Trevor Yee

Almost completely unreported elsewhere, parts of Kingston and St. Andrew appeared to have been under attack from an unusual source, during the past two weeks, the end of January and beginning of February, 2006.

Several of our members reported considerable itching after being outdoors, during the period. It has also been reported that areas such as Redhills, Norbrook, Graham Heights, Temple Hall and Stony Hill in St. Andrew, Half Way Tree and as far as Riverton City in Kngston were affected.

During the worst attack, our members reported seeing a dark mist in the area but more often the itching occurred even when this could not be discerned. It was reported that several persons contacted the Ministry of Health to enquire if they were under attack by insects and the minister, the Hon. John Junor advised that after checking into the matter, it was concluded by the Ministry that the culprit was most likely an infestation of Cow Itch. These events lend credence to the reports occasionally read of the spreading of Cow Itch in schools and school buses by pranksters.

There are mainly two plants that are called Cow Itch locally, both of which are fairly common in the hilly areas, e.g. Stony Hill, surrounding Kingston, and throughout the island. One of these *Macuna puriens* (Papillionaceae) is a twining climber which bears a fairly beautiful inflorescence of reddish or deep purple pea flowers and has pods resembling a small Stinking Toe These pods are covered with very irritating hairs. The other is also a twining climber and sometimes called the Twining Cow Itch, *Tragia volubis* (Euphorbiaceae). This latter plant is common in waste areas, pastures and woodlands is often encountered as small twining plants but will grow into a shrub, 3 metres in height. The entire plant is covered by irritating hairs.

The hairs of both plants cause intense itching. The reason for the attack is likely to be the result of the right mix of climatic conditions. After the heavy rains in 2005, the two plants were observed thriving. This was followed by quite dry weather in recent months and by heavy winds in the past two weeks. It is possible that either or both of the plants became abundant, matured and then dried out, and that the quite strong winds experienced over the past two weeks spread the irritating hairs, as thick as a dark dust in some locations, adjoining the hills.

There other plants, such as probably all the species of the genus *Urera spp*. (Urticaceae), related to the Sting Nettle, *Urtica dioica*, that have irritating hairs, but the two plants mentioned above are the most likely culprits.

Prepared by Jill Byles
27/12/04